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# **NURTURING A CULTURE OF GREEN PUBLIC TENDER: THE CASE OF THE PHILIPPINE HEART CENTER**

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## **ABSTRACT**

*Green public procurement generally means the inclusion of environmental criteria when allocating contracts for supplies or consultancy services, or works to contractors and service providers. Going green in public tender is the order of the day not only in most countries in Europe but also in some emerging economies in the Asia-Pacific. While sustainable public procurement is still in its infancy stage in the Philippines, there are a few public entities such as the Philippine Heart Center which started institutionalizing green public procurement. This paper aimed to describe and analyze green public procurement initiatives of the Philippine Heart Center and its impact in the triple bottom line of sustainability using case study method and content analysis. The researcher argued that the Philippine Heart Center is among the few public entities that pioneered the institutionalization of green public procurement. Findings indicate that the Philippine Heart Center's initiatives in green public tender can be classified as policy-related and infrastructure-related. The researcher concluded that the implementation of green public procurement policies, projects, programs and activities in the Philippine Heart Center reaped economic returns, environmental benefits and social impact to the Center in particular and the society at large. By way of recommendation, the researcher stressed the importance of institutional commitment from top-level management and adequate communication and education as key to nurturing the culture of green public tender in the government.*

**KEYWORDS** – *sustainable development, sustainable public procurement, sustainability*

## **1.0 INTRODUCTION**

Green Public Procurement (GPP) is described as a process wherein public administration purchase products, implement civil works or services with less ecological impact in their entire life cycle (Public Procurement for a Better Environment, 2008).

In recent years, there has been a worldwide trend on the acceptance of green public procurement as an indispensable policy tool to promote this objective. Green public procurement (GPP) has been officially recognized by the European Commission (2010) describing GPP as a process where public entities take

into account environmental considerations on contracts involving goods, services or civil works.

The initial steps towards GPP and the “EU 2020” strategy, where GPP is identified as a policy tool achieve environmental objectives (European Commission 2010), took place in 2001 (Gothenburg European Council 2001). In year 2003 EU member states were urged to nationalize this objective by adopting a National Action Plans (NAPs) on GPP, which today most of them have done so (European Commission 2003).

The same trend can be observed in the international level. Forming an integral part of the multilateral trade agreements within the World Trade Organization, the Government Procurement Agreement (GPA), containing GPP paragraphs, kicked off in 1994.

The World Bank projected that around US\$10 trillion is allocated for global public procurement annually. Out of this, emerging economies allocate approximately \$820 billion annually for citizens' fund, which takes a sizable 50 percent for expenditures on welfare programs and social services. (WB 2009).

Accordingly, taxpayers' money is better spent when it is directed towards achieving environmental goals by procuring supplies, civil works and services with the same value for money, quality and functionality and with reduced ecological impact compared to conventional items devoid of environmental value (Public Procurement for a Better Environment 2008).

Seated on a 2.7 hectare lot at the corner of East Avenue and Matalino Street in the Diliman District of Quezon City, the Philippine Heart Center (PHC) has four (4) buildings composed of a five-story Hospital Building, the two-story Nuclear Medicine Building, the nine-story Medical Arts Building (MAB), and the two-story MAB Annex with a car park level.

The Philippine Heart Center is established to treat patients with heart-related illnesses. It is regarded as one of the leading Asian medical hospitals dedicated for heart surgery admitting approximately 14,000 patients annually, of whom more than 3,300 undergo surgical treatment. Established by then President Ferdinand Marcos in 1975, it is a semi-government hospital equipped with a 382 – bed tertiary care center. It has 21 nursing units, 53 Intensive Care Unit (ICU) beds, 3 hybrid operating rooms, 24 suites, 56 private rooms, 74 semi – private rooms, 3 adult service wards, a presidential suites, pediatric service ward and an auditorium. MRI, CT-Scan and Physical Rehabilitation Services, are also provided by the hospital. Known for its active advocacy to sustainable production and consumption, the Philippine Heart Center envisions to lead the national bureaucracy in environmental protection and conservation.

On the basis of reports and policy documents examined by the researcher, the following are among the objectives of the Philippine Heart Center relevant to green public procurement: (i) to nurture the culture of making environmentally sound decisions in government, especially in the purchase and use of different products in every department of the hospital; (ii) to integrate environmental criteria in public tenders

whenever possible and practicable by establishing the specifications and requirements for products and services to be considered environmentally advantageous through its content, packaging, method of production and delivery; (iii) to ensure sufficient energy supply to sustain economic growth by establishing and sustaining the Energy Management Program (EMP), consistently improve efficient energy utilization and reduce energy consumption by 2.5% every year; and (iv) to sustain and encourage dynamic participation on the aforementioned advocacies by actively engaging its employees and stakeholders.

Inasmuch as the area of sustainable public procurement is relatively a new domain of research, it would be interesting to get perspectives in the implementation of sustainable public procurement from a public entity in a developing country such as the Philippines. This paper presents the public procurement initiatives of the Philippine Heart Center and how these initiatives impact environmental, economic and social sustainability representing the three (3) P's: planet, profit and people respectively.

## **2.0 OBJECTIVES**

This paper aimed to analyze and describe the sustainable public procurement initiatives of the Philippine Heart Center, the key success factors in their implementation and how these initiatives impact the triple bottom dimensions of sustainability.

## **3.0 RESEARCH METHODOLOGY**

The researcher used the case study method. The Philippine Heart Center was used as illustrative of sustainable public tender. The researcher looked into the green public procurement initiatives, their classification as well as how these initiatives impact goals of sustainability of the Philippine Heart Center. The case study method was supplemented by documentary and content analysis of sustainability reports as well as GPP Guidelines of the organization.

## **4.0 RESULTS**

### **A. Green Public Procurement Initiatives of the Philippine Heart Center**

The researcher classified the tool used in the green public procurement initiatives of the Philippine Heart Center into two: policy-related and supply and infrastructure-related. The GPP initiatives were characterized in terms of their nature based on the classical distinctions of sustainable consumption and production tools: economic (use of price signals to integrate environmental and social benefits), behavioural (aims to influence consumer behavior), regulatory (use of legislations, policies and certification

schemes) and communication/information provision (use of information and awareness-raising instruments such as eco-labeling to influence purchasing decision).

Apparently, the Philippine Heart Center employed a mix of policy packages and strategies to promote and implement green public procurement initiatives as shown by the use of various regulatory,

informational and behavioural tools. Notably, its GPP initiatives are predominantly policy-related which aims to institutionalize GPP and to nurture the culture of green growth within the organization.

Table 1 presents the various GPP initiatives, their classification, objectives, tools used and their brief description.

**Table 1**  
**GPP Initiatives of the Philippine Heart Center**

| <b>GPP Initiatives</b>                                                   | <b>Objectives</b>                                                                                                                                                                    | <b>Description</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tool classification: Policy-related</b>                               |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Green Procurement Standards Program<br><br>(regulatory)                  | To nurture the culture of making environmentally sound decisions in government, especially in the purchase and use of different products in every department of the hospital         | The Green Procurement Standard was institutionalized through its incorporation in the Philippine Heart Center Policy Manual in 2012. The policy highlights three important components in procurement of products and services. These are product, process, and manufacturer – specific attributes                                                                                                                                        |
| Green Public Procurement Policy Awareness Program<br><br>(informational) | To sustain and encourage dynamic participation on the aforementioned advocacies by actively engaging its employees and stakeholders.                                                 | Management were properly oriented on the program or activity cost-benefit projection while the employees were instructed on the environmental and social benefits of eco-products and equipment. The employees of the hospital are likewise regularly and periodically informed of the policies, programs and activities, which encourages acknowledgement and cooperation towards the executed policies and activities of the hospital. |
| Green Procurement Integration Policy.<br><br>(regulatory)                | To influence markets and to make greener products available on the market by improving the environmental performance of products and/or by stimulating 'greener' product innovations | The Philippine Heart Center likewise implemented an integration policy in its green public procurement initiatives, i.e., manufacturers and service providers were brought in to the system by first ensuring that they are ISO certified. ISO certified companies adapt eco-friendly technology and procedures.                                                                                                                         |
| <b>Tool Classification: Supply and infrastructure-related</b>            |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Environmentally Preferable                                               | To integrate environmental criteria in public tenders                                                                                                                                | The Philippine Heart Center procures products are generally                                                                                                                                                                                                                                                                                                                                                                              |

|                                                                                       |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Purchasing Program<br><br>(behavioural, informational)                                | whenever possible and practicable by establishing the specifications and requirements for products and services to be considered environmentally advantageous through its content, packaging, method of production and delivery      | (1) less toxic; (2) minimally polluting; (3) energy efficient; (4) safer and healthier for patients, workers and the environment; (5) higher recyclability and recycled content; and (6) with less packaging.                                                                                   |
| Energy Reduction and energy saving through GPP program<br><br>(economic, behavioural) | To ensure sufficient energy supply to sustain economic growth by establishing and sustaining the Energy Management Program (EMP), consistently improve efficient energy utilization and reduce energy consumption by 2.5% every year | Construction and installation of energy efficient equipment and energy saving devices such as sewage treatment plant, solar panels, botanical gardens and vertical gardens, efficient heat pumps, air conditioning units, lighting and appropriate motor types for various pieces of equipment. |

**B. Triple Bottom Line of Sustainability: Economic, Social and Environmental Impacts of GPP Initiatives in the Philippine Heart Center**

The implementation of green public procurement policies, projects, programs and activities in the Philippine Heart Center reaped economic returns, environmental benefits and social impact to the Center in particular and the society at large.

**Economic Returns.** The shift from the traditional lighting to light emitting diode (LED) resulted to reduction in energy utilization and cost (Table 2).

The installation of 100 solar panels in December 2015 resulted to the generation of an average of 8,182 kWhr/ month of electricity observed and recorded during the first 6 months of operation. This enabled the hospital to have an energy cost reduction of Php 77,729/ USD \$1,654 (Php 466,374/ USD \$9,923 from January to June 2016).

**Environmental Benefits.** The Philippine Heart Center recognizes that energy consumption

entails significant impacts on the environment because of the carbon emissions. With its reduced energy demand and resulting lower energy consumption since the implementation of its green public procurement initiatives, the Center has greatly contributed to environmental protection and sustainability. Indirectly, the Center helps in keeping patients safe and healthy through the lessened carbon footprint.

**Social Impact.** Apparently, as a result of the savings made from its operations, the number of rooms constructed increased from 386 to 466. Consequently, the number of utilities and equipment were also greater than before. This inevitably results to job creation. The personnel numbers grow from 1,200 to 2,700 individuals. Additional specialized rooms such as a laboratory and a CT-MRI room including an Annex building were also built enabling the Center to expand its services, improve its operations and extend social delivery more efficiently and effectively (The Philippine Heart Center, 2016).

**Table 2**  
**Reduction in Energy Utilization Using Light Emitting Diode (LED)**

| Type of Light       |                         | Energy Consumption (in watts) |         | Number of Lights |         | Total Energy Consumption |           | Total Energy Reduction | Total Energy Cost Reduction |
|---------------------|-------------------------|-------------------------------|---------|------------------|---------|--------------------------|-----------|------------------------|-----------------------------|
| Previous            | Current                 | Previous                      | Current | Previous         | Current | Previous                 | Current   |                        |                             |
| Incandescent        | CFL                     | 40                            | 7       | 1,000            | 3,000   | 40,000                   | **21,000  | 19,000                 | 180.5                       |
| PAR 38              | Loft PAR 38             | 100                           | 18      | 200              | 200     | 20,000                   | 3,600     | 16,400                 | 155.8                       |
| Downlight Halogen   | LED                     | 50                            | 3       | 200              | 200     | 10,000                   | 600       | 9,400                  | 89.3                        |
| Halogen Floodlights | Metal Halide Floodlight | 400                           | 50      | 100              | 100     | 40,000                   | 5,000     | 35,000                 | 332.5                       |
| Mercury Vapor Lamps | High Pressure Sodium    | 500                           | 50      | 50               | 50      | 25,000                   | 2500      | 22,500                 | 213.75                      |
| T12 FL              | T8 FL                   | 36                            | 28      | 15,960           | 18,000  | 574,560                  | **504,000 | 70,560                 | 670.32                      |
| Magnetic Ballast    | Electronic Ballast      | 36                            | 28      | 15,000           | 15,000  | 1,200000                 | 870,000   | 120,000                | 1140                        |
| <b>Total</b>        |                         |                               |         |                  |         |                          |           | <b>***2782.17</b>      |                             |

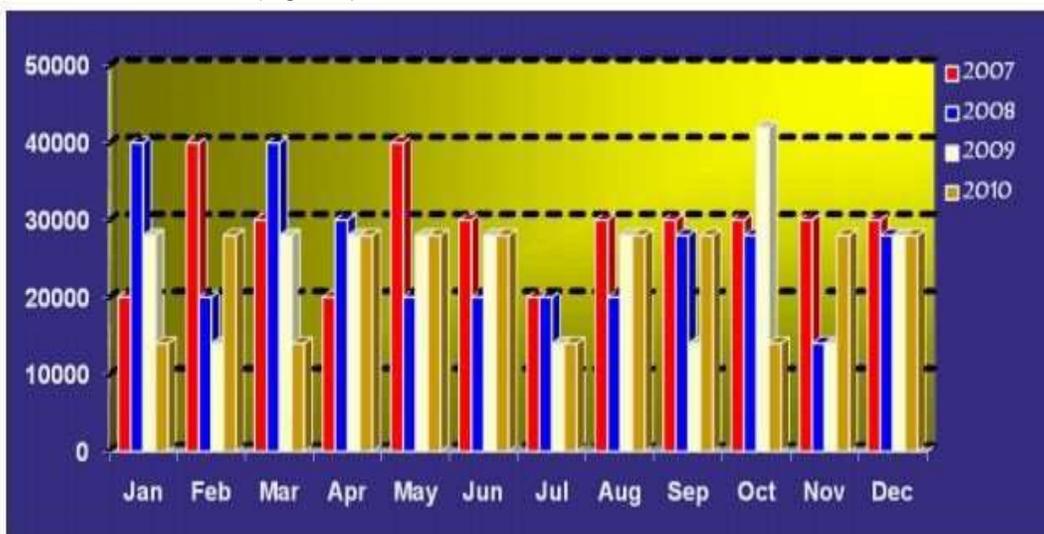
\*Computation for Total Energy Reduction (Previous Light’s Energy Consumption – Current’s Light Energy Consumption)

\*Computation for Total Energy Cost Reduction (Total Energy Reduction/1000kWh\*Php10)

\*\*current number of light is greater than the previous

\*\*\*initial total saving in all replaced lights

The installation of heat pump to replace the boilers brought down the hospitals fuel consumption to 280,000 liters in 2010 contrast to 350,000 liters in 2007. The graph below presents the reduction in utilized fuel from 2007 – 2010 (Figure 1)



**Figure 1 Reduction in the Utilization of Fuel (Source: Philippine Heart Center, 2016)**

**B. Key Success Factors of the Green Public Procurement Initiatives of the Philippine Heart Center**

Although its green procurement program is still new compared to other organizations with more matured policies and programs, the Philippine Heart Center was able to launch a

number of successful green procurement initiatives such that it sets a good example for other public entities in the Philippines to follow. Table 3 below provides the key factors that explain the success behind some of the Center’s green procurement initiatives.

**Table 3  
Key Success Factors in the GPP Initiatives of the Philippine Heart Center**

| Key Success Factors                                                                                                    | Description/Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Institutional Commitment from the top-level management and a strong motivation from the staff                          | The support of the Management led by the Hospital Director and the collaboration of employees are instrumental to making the Philippine Heart Center’s initiatives successful. The same level of commitment and spirit of cooperation are needed to sustain the programs, projects and activities that had already been initiated by the Eco – Friendly Committee. The collaboration of both the Management and employees are significant to the success of the advocated endeavors of the committee. Apparently, support from the top management is a controlling point in making these green growth initiatives successful. The decisions on policies, programs, activities and development such as installation of innovative equipment are from them. With the encouragement from the management, the Eco-Friendly Committee was able to work beyond their designated duties for the hospital, patient and environment’s betterment. |
| Communication, Orientation and Education                                                                               | Since the vision of the Philippine Heart Center to greening its operations appears to be an entirely novel thing to its stakeholders, more particularly to its immediate employees and constituents, it became imperative for it to effectively involve them in its visioning activities as well as in communicating the message to all its stakeholders. With that said, it is clear that the management’s acts of orienting, briefing and educating its employees, staff and stakeholders of its green procurement policies and objectives bore fruits in the long-run.                                                                                                                                                                                                                                                                                                                                                                |
| Establishment of internal green public procurement guidelines and a governance structure to oversee its implementation | The Philippine Heart Center has established green procurement guidelines and set up a governance structure that will oversee its implementation. With the guidelines in place, the Center along with its departments, units, and attached agencies are properly guided upon in their procurement activities, ensuring that environmental criteria are embedded in their specifications and terms of reference with prospective suppliers and service providers. In conjunction to this, the Center created a form of governance structure that provides for the people (the Eco-Friendly Committee and Green Procurement Committee), process (green procurement guidelines) and system (standards and certification schemes) to ensure that its operations are on the right track vis-à-vis its green growth objectives.                                                                                                                 |

**5.0. CONCLUSIONS**

The Philippine Heart Center green public procurement case study demonstrated the use of two classifications of GPP initiatives: policy-related and supply and infrastructure-related. The use of green public procurement as a policy instrument led to the

realization of the thrusts in triple bottom line of sustainability: economic, social and environmental in the case of the Philippine Heart Center. The key success factors in the GPP initiatives of the Philippine Heart Center are as follows: strong institutional support; a well-established green public procurement

system that includes policies, people and structure; communication and awareness raising activities to realize GPP implementation.

## 6.0. RECOMMENDATIONS

The researcher recommends for the following courses of actions in light of the conclusions drawn from the study:

1. Institutionalize GPP by establishing GPP Guidelines and a GPP Committee or Eco-Friendly Committee or a similar set-up within their respective organizations;
2. Empower personnel and staff in the public sector by providing them training, orientation and education sessions for GPP implementation;
3. Capitalize upon existing collaborations or cooperation of the government with external institutions.

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